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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,393	10/11/2002	Jon A. Yusko	56162.000391	2786

21967 7590 05/11/2006

HUNTON & WILLIAMS LLP  
INTELLECTUAL PROPERTY DEPARTMENT  
1900 K STREET, N.W.  
SUITE 1200  
WASHINGTON, DC 20006-1109

EXAMINER

DUONG, FRANK

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 05/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

9/1

<b>Office Action Summary</b>	<b>Application No.</b> 10/065,393	<b>Applicant(s)</b> YUSKO ET AL.	
	<b>Examiner</b> Frank Duong	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 October 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-14,16-22,24-35,37-46 and 48-55 is/are rejected.
- 7) ☒ Claim(s) 3,15,23,36 and 47 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action is a response to communication dated 10/11/02. Claims 1-55 are pending in the application.

#### ***Information Disclosure Statement***

2. The information disclosure statement filed 02/11/03 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been considered and placed in the application file.

#### ***Specification***

3. The disclosure is objected to because of the following informalities:

Page 26, "Figure" should be deleted.

Appropriate correction is required.

#### ***Claim Objections***

4. Claims 7, 19, 22, 24, 25-27, 29, 32, 34, 35, 37, 38, 40, 42, 43, 45, 46, 48, 49, 51 and 53-54 are objected to because of the following informalities:

The term "adapted to" is commonly recited in the above claims. Such the term should be changed to --configured to--.

A rationale for the objection of the above claims is that such term has a tendency to suggest or make the limitation following optional but does not require steps

to be performed, or by claim language that does not limit a claim to a particular structure. See MPEP § 2111.04.

Appropriate correction is required.

### ***Double Patenting***

5. Applicant is advised that should claim 24 be found allowable, claim 25 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2, 4-14, 16-22, 24-35, 37-46 and 48-55 are rejected under 35

U.S.C. 102(e) as being anticipated by Chiles et al (Patent Application Publication 2001/0036192) (hereinafter "Chiles").

Regarding **claim 1**, in accordance with Chiles reference entirety, Chiles discloses a method (*Figs. 9a-9b*) for initializing a PPPoE session between a PPPoE client of a host (*Fig. 1; 405 or Fig. 5; 505*) and an access concentrator (*Fig. 1; 415 or Fig. 5; 515*) during a PPPoE discovery stage (*page 5, paragraph [0058] and thereafter*), the method comprising the steps of:

determining, at the PPPoE client, a status of a connection between the host and the access concentrator prior to a transmission of a PPPoE discovery packet (*Fig. 9a and page 6, paragraph [0068] to page 7, paragraph [0071]*); and

transmitting the PPPoE discovery packet for reception by the access concentrator when the status indicates a physical layer connection is established (*Fig. 9b and page 7, paragraph [0072]*).

Regarding **claim 2**, in addition to features recited in base claim 1 (see rationales discussed above), Chiles further discloses the step of delaying the transmission of the PPPoE discovery packet for a predetermined time period when the status indicates a physical layer connection is not established (*Fig. 9a; steps 901-905 and page 6, paragraph [0069]*, *it is disclosed if communications between the client device and the home gateway device are not already established, the client and gateway devices establish communications. In doing so, the transmission of the PPPoE discovery packet has inherently delayed*).

Regarding **claim 4**, in addition to features recited in base claim 2 (see rationales discussed above), Chiles further discloses the step of attempting to establish a physical layer connection between the host and the access concentrator when the status

indicates a physical layer connection is not established (*this limitation is clearly depicted in Fig. 9a; block 901-95 and corresponding description on page 6, paragraph [0069]*).

Regarding **claim 5**, in addition to features recited in base claim 1 (see rationales discussed above), Chiles further discloses the step of attempting to establish a physical layer connection between the host and the access concentrator when the status indicates a physical layer connection is not established (*Fig. 9a; steps 901-905 and page 6, paragraph [0069]*, it is disclosed if communications between the client device and the home gateway device are not already established, the client and gateway devices establish communications. In doing so, the connection establishment between the devices has inherently been attempted).

Regarding **claim 6**, in addition to features recited in base claim 1 (see rationales discussed above), Chiles further discloses wherein the step of determining the status of the physical layer connection includes querying (*command and/or request*) a physical interface in electrical communication with a transmission medium between the host and the access concentrator (*page 6, paragraph [0068]*).

Regarding **claim 7**, in addition to features recited in base claim 1 (see rationales discussed above), Chiles further discloses wherein the step of querying the physical interface includes querying a software interface configured to monitor a status of the physical interface (*paragraph [0068]*, *launching an application or sending a command and/or request is discussed thereafter*).

Regarding **claim 8**, in addition to features recited in base claim 1 (see rationales discussed above), Chiles further discloses wherein the PPPoE discovery packet

includes one of a group consisting of: a PADI packet (*Fig. 9b; 901*) and a PADR packet (*Fig. 9b; 905*) (*page 7, paragraph [0072]*).

Regarding **claim 9**, in addition to features recited in base claim 1 (see rationales discussed above), Chiles further discloses the step of generating the PPPoE discovery packet when the status indicates a physical layer connection is established (*page 6, paragraph [0070]*).

Regarding **claim 10**, in accordance with Chiles reference entirety, Chiles discloses a method (*Figs. 9a-9b*) for initializing a PPPoE session between a PPPoE client of a host (*Fig. 1; 405 or Fig. 5; 505*) and an access concentrator (*Fig. 1; 415 or Fig. 5; 515*) during a PPPoE discovery stage (*page 5, paragraph [0058] and thereafter*), the method comprising the steps of:

determining, at the PPPoE client, a status of a connection between the host and the access concentrator (*Fig. 9a and page 6, paragraph [0068] to page 7, paragraph [0071]*); and

waiting, at the PPPoE client, for a first PPPoE discovery packet from the access concentrator when the status indicates a physical layer connection is established (*Fig. 9b; steps 905 and 917 and paragraph [0070] depicts and discusses, respectively, the client device is waiting for PADS packet from home gateway device*).

Regarding **claim 11**, in addition to features recited in base claim 10 (see rationales discussed above), Chiles further discloses the step of terminating the PPPoE discovery stage when the status indicates a physical layer connection is

not established (*this step is inherent to prevent client device 105 trying to connect to the failed home gateway 115*).

Regarding **claim 12**, in addition to features recited in base claim 10 (see rationales discussed above), Chiles further discloses the step of attempting to establish a physical layer connection between the host and the access concentrator when the status indicates a physical layer connection is not established (*this limitation is clearly depicted in Fig. 9a; block 901-95 and corresponding description on page 6, paragraph [0069]*).

Regarding **claim 13**, in addition to features recited in base claim 10 (see rationales discussed above), Chiles further discloses the step of transmitting a second PPPoE discovery packet (PADR) for reception by the access concentrator (home gateway device) when the status indicates a physical layer connection is established (*Fig. 9b depicts PADR packet transmitted by client device for receiving by the home gateway device*).

Regarding **claim 14**, in addition to features recited in base claim 13 (see rationales discussed above), Chiles further discloses the step of delaying a transmission of the second PPPoE discovery packet for a predetermined time period when the status indicates a physical layer connection is not established (*Fig. 9a; steps 901-905 and 917 and page 6, paragraph [0069], it is disclosed if communications between the client device and the home gateway device are not already established, the client and gateway devices establish communications. In doing so, the transmission of the PPPoE discovery packet has inherently delayed*).



Regarding **claim 16**, in addition to features recited in base claim 13 (see rationales discussed above), Chiles further discloses the step of generating, at the PPPoE client, the second PPPoE discovery packet when the status indicates a physical layer connection is established (*this limitation is clearly depicted in Fig. 9a; block 901-95 and corresponding description on page 6, paragraph [0069]*).

Regarding **claim 17**, in addition to features recited in base claim 13 (see rationales discussed above), Chiles further discloses wherein the second PPPoE discovery packet includes one of a group consisting of: a PADI packet (*Fig. 9b; 901*) and a PADR packet (*Fig. 9b; 905*) (*page 7, paragraph [0072]*).

Regarding **claim 18**, in addition to features recited in base claim 10 (see rationales discussed above), Chiles further discloses wherein the step of determining the status of the physical layer connection includes querying a physical interface in electrical communication with a transmission medium between the host and the access concentrator (*page 6, paragraph [0068]*).

Regarding **claim 19**, in addition to features recited in base claim 10 (see rationales discussed above), Chiles further discloses wherein the step of querying the physical layer interface includes querying a software interface configured to monitor a status of the physical interface (*paragraph [0068], launching an application or sending a command and/or request is discussed thereafter*).

Regarding **claim 20**, in addition to features recited in base claim 10 (see rationales discussed above), Chiles further discloses wherein the first PPPoE discovery

packet includes one of a group consisting of: a PADO packet (*Fig. 9b; 903*) and a PADS packet (*Fig. 9b; 917*) (*page 7, paragraph [0072]*).

Regarding **claim 21**, in accordance with Chiles reference entirety, Chiles shows in a customer premise access equipment (CPE) (*Fig. 6 and page 5, paragraphs [0059] to [0062]*) having a processor (*Fig. 6; elements 604-616*) and a physical interface (*Fig. 6; element 620*) operably connected to the processor and to a transmission medium between the CPE and an access concentrator (*see Fig. 1 and 6 for connection details between client and gateway devices*), a computer readable medium comprising a set of executable instructions (software) (*page 5, paragraph [0059]*) configured to manipulate the processor to:

determine a status of a connection between the physical interface and the access concentrator prior to a transmission of a first PPPoE discovery packet (*Fig. 9a and page 6, paragraph [0068] to page 7, paragraph [0071]*);

and

provide the first PPPoE discovery packet to the physical interface for transmission to the access concentrator when the status indicates a physical layer connection is established (*Fig. 9b and page 7, paragraph [0072]*).

Regarding **claim 22**, in addition to features recited in base claim 21 (see rationales discussed above), Chiles further discloses executable instructions configured to manipulate the processor to delay the provision of the first PPPoE discovery packet to the physical interface for a predetermined time period when the status indicates a physical layer connection is not established (*Fig. 9a; steps 901-905 and page 6,*

*paragraph [0069], it is disclosed if communications between the client device and the home gateway device are not already established, the client and gateway devices establish communications. In doing so, the transmission of the PPPoE discovery packet has inherently delayed).*

Regarding **claim 24**, in addition to features recited in base claim 21 (see rationales discussed above), Chiles further discloses executable instructions configured to manipulate the processor to direct the physical interface to establish a physical layer connection between the CPE and the access concentrator when the status indicates a physical layer connection is not established (*this limitation is clearly depicted in Fig. 9a; block 901-95 and corresponding description on page 6, paragraph [0069]*).

Regarding **claim 25**, in addition to features recited in base claim 21 (see rationales discussed above), Chiles further discloses executable instructions configured to manipulate the processor to direct the physical interface to establish a physical layer connection between the CPE and the access concentrator when the status indicates a physical layer connection is not established (*this limitation is clearly depicted in Fig. 9a; block 901-95 and corresponding description on page 6, paragraph [0069]*).

Regarding **claim 26**, in addition to features recited in base claim 21 (see rationales discussed above), Chiles further discloses wherein the executable instructions are configured to manipulate the processor to determine the status of the physical layer connection include executable instructions configured to manipulate the processor to query the physical interface (*page 6, paragraph [0068]*).

Regarding **claim 27**, in addition to features recited in base claim 26 (see rationales discussed above), Chiles further discloses wherein the executable instructions configured to manipulate the processor to query the physical interface include executable instructions configured to manipulate the processor to query a software interface for monitoring a status of the physical interface (*page 6, paragraph [0068]*).

Regarding **claim 28**, in addition to features recited in base claim 21 (see rationales discussed above), Chiles further discloses wherein the first PPPoE discovery packet includes one of a group consisting of: a PADI packet (*Fig. 9b; 901*) and a PADR packet (*Fig. 9b; 905*) (*page 7, paragraph [0072]*).

Regarding **claim 29**, in addition to features recited in base claim 21 (see rationales discussed above), Chiles further discloses executable instructions configured to manipulate the processor to wait for a second PPPoE discovery packet (*PADS packet*) from the access concentrator when the status indicates a physical layer connection is established (*Fig. 9b depicts PADR packet transmitted by client device for receiving by the home gateway device and PADS packet responds by the home gateway*).

Regarding **claim 30**, in addition to features recited in base claim 29 (see rationales discussed above), Chiles further discloses wherein the second PPPoE discovery packet includes one of a group consisting of: a PADO packet (*Fig. 9b; 903*) and a PADS packet (*Fig. 9b; 917*) (*page 7, paragraph [0072]*).

Regarding **claim 31**, in addition to features recited in base claim 21 (see rationales discussed above), Chiles further discloses executable instructions configured to manipulate the processor to terminate a PPPoE discovery stage when the status indicates the physical layer connection is not established (*this step is inherent to prevent client device 105 trying to connect to the failed home gateway 115*).

Regarding **claim 32**, in addition to features recited in base claim 21 (see rationales discussed above), Chiles further disclose executable instructions configured to manipulate the processor to generate the first PPPoE discovery packet when the status indicates a physical layer connection is established (*Fig. 9b and page 7, paragraph [0072]*).

Regarding **claim 33**, in addition to features recited in base claim 21 (see rationales discussed above), Chiles further discloses wherein the set of executable instructions is implemented as part of a network protocol stack (*see Fig. 6; elements 604-616*).

Regarding **claim 34**, in accordance with Chiles reference entirety, Chiles shows a customer premise access equipment (CPE) (*Fig. 6 and page 5, paragraphs [0059] to [0062]*) comprising:

a physical interface (620) operably connected to a transmission medium between the CPE and an access concentrator (*see Fig. 1 for connection details between client and gateway devices*); and

a PPPoE client (613) in bi-directional communication with the physical interface (620) and being configured to:

determine a status of a physical layer connection between the physical interface and the access concentrator over the transmission medium (*Fig. 9a and page 6, paragraph [0068] to page 7, paragraph [0071]*); and

provide the first PPPoE discovery packet to the physical interface for transmission over the transmission medium to the access concentrator when the status indicates the physical layer connection is established (*Fig. 9b and page 7, paragraph [0072]*).

Regarding **claim 35**, in addition to features recited in base claim 34 (see rationales discussed above), Chiles further discloses wherein the PPPoE client is further configured to delay the provision of the first PPPoE discovery packet to the physical interface for a predetermined time period when the status indicates a physical layer connection is not established (*Fig. 9a; steps 901-905 and page 6, paragraph [0069], it is disclosed if communications between the client device and the home gateway device are not already established, the client and gateway devices establish communications. In doing so, the transmission of the PPPoE discovery packet has inherently delayed*).

Regarding **claim 37**, in addition to features recited in base claim 34 (see rationales discussed above), Chiles further discloses wherein the PPPoE client is further configured to query the physical interface to determine the status of the physical layer connection (*page 6, paragraph [0068]*).

Regarding **claim 38**, in addition to features recited in base claim 34 (see rationales discussed above), Chiles further discloses a software interface (614) in

communication with the physical interface (620) and the PPPoE client (613) and being configured to monitor a status of the physical interface, and wherein the PPPoE client is further configured to query the software interface to obtain the status of the physical interface (*page 6, paragraph [0068]*).

Regarding **claim 39**, in addition to features recited in base claim 34 (see rationales discussed above), Chiles further discloses wherein the first PPPoE discovery packet includes one of a group consisting of: a PADI packet (*Fig. 9b; 901*) and a PADR packet (*Fig. 9b; 905*) (*page 7, paragraph [0072]*).

Regarding **claim 40**, in addition to features recited in base claim 34 (see rationales discussed above), Chiles further discloses wherein the PPPoE client is further configured to wait for a second PPPoE discovery packet from the access concentrator when the status indicates a physical layer connection is established (*Fig. 9b depicts PADR packet transmitted by client device for receiving by the home gateway device*).

Regarding **claim 41**, in addition to features recited in base claim 40 (see rationales discussed above), Chiles further discloses wherein the second PPPoE discovery packet includes one of a group consisting of: a PADO packet (*Fig. 9b; 903*) and a PADS packet (*Fig. 9b; 917*) (*page 7, paragraph [0072]*).

Regarding **claim 42**, in addition to features recited in base claim 34 (see rationales discussed above), Chiles further discloses wherein the PPPoE client is further configured to terminate a PPPoE discovery stage when the status indicates the

physical layer connection is not established (*this step is inherent to prevent client device 105 trying to connect to the failed home gateway 115*).

Regarding **claim 43**, in addition to features recited in base claim 34 (see rationales discussed above), Chiles further discloses wherein the PPPoE client is further configured to generate the first PPPoE discovery packet when the status indicates a physical layer connection is established (*Fig. 9b and page 7, paragraph [0072]*).

Regarding **claim 44**, in addition to features recited in base claim 34 (see rationales discussed above), Chiles further discloses wherein the PPPoE client (613) is implemented as part of a network protocol stack (*see Fig. 6 and protocol stack 604-616*).

Regarding **claim 45**, in accordance with Chiles reference entirety, Chiles shows a communications processor (604-616) for use in a customer premise access equipment (CPE) (*Fig. 6*), the CPE having a physical interface (620) in electrical communication with a transmission medium between the CPE and an access concentrator (*see Fig. 1 for connection details between client and gateway devices*), the processor comprising:

- a network protocol stack (604-614); and
- a PPPoE client (613) in bi-directional communication with the physical interface (620) and being configured to:



determine a status of a physical layer connection between the physical interface and the access concentrator over the transmission medium (*Fig. 9a and page 6, paragraph [0068] to page 7, paragraph [0071]*); and

provide the first PPPoE discovery packet to the physical interface for transmission over the transmission medium to the access concentrator when the status indicates the physical layer connection is established (*Fig. 9b and page 7, paragraph [0072]*).

Regarding **claim 46**, in addition to features recited in base claim 45 (see rationales discussed above), Chiles further discloses wherein the PPPoE client (613) is further configured to delay the provision of the first PPPoE discovery packet to

the physical interface for a predetermined time period when the status indicates a physical layer connection is not established (*Fig. 9a; steps 901-905 and page 6, paragraph [0069], it is disclosed if communications between the client device and the home gateway device are not already established, the client and gateway devices establish communications. In doing so, the transmission of the PPPoE discovery packet has inherently delayed*).

Regarding **claim 48**, in addition to features recited in base claim 45 (see rationales discussed above), Chiles further discloses wherein the PPPoE client (613) is further configured to query the physical interface (620) to determine the status of the physical layer connection.

Regarding **claim 49**, in addition to features recited in base claim 45 (see rationales discussed above), Chiles further discloses wherein a software interface is in

communication with the physical interface and the PPPoE client and is configured to monitor a status of the physical interface (*page 6, paragraph [0068]*), and the PPPoE client is further configured to query the software interface to obtain the status of the physical interface (*page 6, paragraph [0068]*).

Regarding **claim 50**, in addition to features recited in base claim 45 (see rationales discussed above), Chiles further discloses wherein the first PPPoE discovery packet includes one of a group consisting of: a PADI packet (*Fig. 9b; 901*) and a PADR packet (*Fig. 9b; 905*) (*page 7, paragraph [0072]*).

Regarding **claim 51**, in addition to features recited in base claim 45 (see rationales discussed above), Chiles further discloses wherein the PPPoE client is further configured to wait for a second PPPoE discovery packet (*PADS packet*) from the access concentrator when the status indicates a physical layer connection is established (*Fig. 9b depicts PADR packet transmitted by client device for receiving by the home gateway device and PADS packet responds by the home gateway*).

Regarding **claim 52**, in addition to features recited in base claim 51 (see rationales discussed above), Chiles further discloses wherein the second PPPoE discovery packet includes one of a group consisting of: a PADO packet (*Fig. 9b; 903*) and a PADS packet (*Fig. 9b; 917*) (*page 7, paragraph [0072]*).

Regarding **claim 53**, in addition to features recited in base claim 45 (see rationales discussed above), Chiles further discloses wherein the PPPoE client is further configured to terminate a PPPoE discovery stage when the status indicates the

physical layer connection is not established (*this step is inherent to prevent client device 105 trying to connect to the failed home gateway 115*).

Regarding **claim 54**, in addition to features recited in base claim 45 (see rationales discussed above), Chiles further discloses wherein the PPPoE client is further configured to generate the first PPPoE discovery packet when the status indicates a physical layer connection is established (*Fig. 9b and page 7, paragraph [0072]*).

Regarding **claim 55**, in addition to features recited in base claim 45 (see rationales discussed above), Chiles further discloses wherein the PPPoE client (613) is implemented as part of the network protocol stack (*see Fig. 6 and protocol stack 604-616*).

#### ***Allowable Subject Matter***

7. Claims 3, 15, 23, 36 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter:  
The prior art of record, considered individually or in combination, fails to fairly show or suggest the claimed invention of base claims 2, 14, 21, 35, 46 and further limits with novel and unobvious limitations of “wherein the predetermined time period is one of a group consisting of: a constant time period, a random time period, a linearly increasing time period, and an exponentially increasing time period”, structurally and functionally

interconnected with other limitations in a manner as recited in the dependent claims 3, 15, 23, 26 and 47.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ortega et al (USP 6,711,162).

Akgun et al (USP 7,039,049).

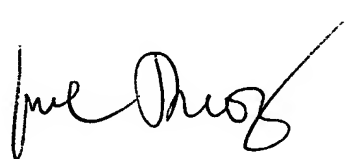
Owens et al (USP 6,977,906).

Skoll, A PPPoE Implementation for Linux, UNIX Association, pages 1-7, 2000.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on 571-272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Frank Duong', with a long, sweeping horizontal stroke extending to the right.

**FRANK DUONG**  
**PRIMARY EXAMINER**

May 8, 2006